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# NOISE AND VIBRATION PREDICTIONS AND MEASUREMENTS

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Nowadays, that ships could reach incredible performances and new technologies permits to design beautiful lines, the real challenge is to build quiet and vibration free ships.

But to pursue the noise and vibration comfort during both design and construction is not an easy path. The research of new most performing solutions, but also material, is a challenge. During the design phase shipyards must pay attention to all details regarding the choice of machineries, materials and design solutions in order to improve comfort without penalize usability and technical characteristics. In order to balance all those characteristics noise and vibration predictions (based on experience and software analysis) are performed during design phase.

FEM and SEA analysis, supported by technical experience, permit to predict in advance noise and vibration problems, to reduce weights and costs and to build more comfortable ships for passengers and crew.

Thanks to these analyses, during final measurements onboard no surprises are awaited and no corrective measures are necessary.

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